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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Ocean Service
Office of Ocean Resources Conservation and Assessment
Hazardous Materials Response and Assessment Division
Coastal Resources Coordination Branch

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MEMORANDUM

Date: 4 May, 1992
To: Cheryl W. Smith, Remedial Project Manager, South Superfund Remedial Branch, USEPA, Region IV
From: Waynon Johnson
Coastal Resource Coordinator, NOAA, Region IV
Subject: Olin Corporation Site, McIntosh, Washington County, Alabama

Review of the subject document for the Olin Corporation Site, McIntosh, Washington County, Alabama was conducted by technical representatives of the Natural Resource Trustee for the National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The following comments are offered for your consideration.

Documents Reviewed:

Revised Sampling and Analysis Plan, Remedial Investigation (RI)/Feasibility Study (FS), McIntosh Plant, Olin Corporation, McIntosh, Alabama

Comments:

Previous investigations at the Olin site have revealed high concentrations of mercury, hexachlorobenzene (HCB), and DDT and its metabolites (DDTR) in sediments from the discharge ditches and the Olin Basin in Operable Unit (OU) 2. Mercury residues in tissues of fish collected from the Basin also were elevated. The revised sampling plan proposes further sampling in OU-1 (Plant Facility) and in OU-2 (Basin Area). Sampling in OU-1 appears adequate to better characterize the extent of contamination in this area.

Sampling in OU-2, although expanded beyond the Basin and into the surrounding wetland, is not sufficient to characterize fully the extent of contamination into off-site areas and the Tombigbee River. To better characterize the extent of off-site contamination, sampling is suggested additional to that proposed in the revised sampling plan. The additional sampling should include:

- Extra sampling stations in the two ponds north of the Basin to fully characterize contamination of these areas. The stations as currently planned are inadequate for this objective.
- Sampling stations in the deeper areas of the Basin are needed to define deposits of contaminated sediments that may have accumulated in these areas.



- Extension of the sampling grid beyond the Olin property line in OU-2 into the mid-channel area of the Tombigbee River. Sediment and biota samples should be collected from the Tombigbee River above, adjacent to, and below the site.
- Collection of sediment and biota samples at the point in the Tombigbee River where the discharge ditch enters.

In addition to total mercury, sediment samples should be analyzed for acid volatile sulfides (AVS) and simultaneously extracted metals (SEM) and the ratio of SEM/AVS calculated. Organic mercury analyses also should be conducted for sediments. Analyzing for AVS/SEM and organic mercury will provide greater insight into the bioavailability of the mercury within the system. The presence of mercury in fish tissue samples from the Basin indicates that mercury is in a bioavailable form.

Because DDTR was detected in virtually all sediment samples collected from the ditches and Basin, these compounds should be retained as analytes in any further sampling and analysis plans at the site. Although it is stated in the site characterization summary report that these compounds were not manufactured at the site, their presence in on-site sediments nevertheless presents a potential risk to NOAA trust resources in the site vicinity and the extent of this contamination needs to be defined. Tissue analyses should also include the analysis of DDTR.

Quantitation limits for analytes in sediments should be at or below the effects range-low (ER-L) values of Long and Morgan (1990). The ER-L for mercury is 0.15 mg/kg (dry weight), 0.001 mg/kg for DDT, and 0.002 mg/kg for DDE and DDD.

NOAA has commented on work plans previously submitted for the Olin Corporation site. These comments have included recommendations believed to be important to the viability and utility of data resultant from subsequent investigations. Although certain of the recommendations were accepted and incorporated into revised documents, others were not. Because NOAA continues to believe these recommendations to be appropriate, copies of previous comments are attached herewith. We request that recommendations previously made but not incorporated into work plans be reconsidered for the subject Sampling and Analysis Plan.

Thank you for providing NOAA the opportunity to comment on this site and for keeping me apprised of ongoing activities. I will be happy to discuss any questions or comments pertaining to this review that you may have. My telephone number is (404) 347-5231.

References:

Long, E.R. and L.G. Morgan. 1990. The Potential for Biological Effects of Sediment-sorbed contaminants tested in the National Status and Trends Program. NOAA Technical Memorandum NOS OMA 52. 175 pages. + appendices.